

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION  
OF ARTESIAN WASTEWATER  
MANAGEMENT, INC. FOR AUTHORITY  
TO INCREASE EXISTING RATES AND  
CHARGES FOR WASTEWATER SERVICE

PSC Docket No. 13-\_\_\_\_\_

**DIRECT TESTIMONY  
OF  
DAVID L. VALCARENGHI  
ON BEHALF OF**

**ARTESIAN WASTEWATER MANAGEMENT, INC.**

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TABLE OF CONTENTS

		<u>Page</u>
1		
2		
3		
4		
5		
6	I. INTRODUCTION	1
7	II. PURPOSE OF TESTIMONY	1
8	III. THE COMPONENTS OF RATE RELIEF	2
9	A. Rate Base	7
10	1. Used and Useful Utility Plant	8
11	2. Intangible Assets	9
12	3. Accumulated Depreciation	9
13	4. Accumulated Deferred Income Taxes, CIAC, and	
14	Advances	9
15	5. Cash Working Capital and Materials and Supplies	10
16	6. Rate Base Summary	10
17	B. Net Operating Income	11
18	1. Operating Revenues	12
19	2. Operating Expenses	14
20	3. Depreciation	18
21	4. Summary of Operating Expenses	18
22	5. Income Taxes	18
23	C. Rate of Return	19
24	D. AFUDC	20
25	IV. RATE DESIGN	20
26	V. TARIFF	21
27		

1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

3 A. My name is David L. Valcarenghi. I am Manager of Rates and Regulation for Artesian  
4 Water Company, Inc. ("Artesian") and my business address is 664 Churchmans Road,  
5 Newark, Delaware 19702.

6 Q. ON WHOSE BEHALF HAS YOUR TESTIMONY BEEN PREPARED?

7 A. My testimony has been prepared on behalf of Artesian Wastewater Management, Inc.  
8 ("Company" or "AWMI"). AWMI is an affiliate of Artesian and a wholly-owned  
9 subsidiary of Artesian Resources Corporation.

10 Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE AND EDUCATIONAL  
11 BACKGROUND.

12 A. I have been employed by Artesian since March 2011. I am responsible for development  
13 of revenue requirements sponsored by the Company, the administration of rates and  
14 charges assessed by the Company and regulatory reporting. Before coming to Artesian, I  
15 was employed by the Maryland Public Service Commission ("MdPSC") for  
16 approximately 26 years. In that position, I was responsible for examining and monitoring  
17 the financial health of utilities that conduct business in the State of Maryland, which  
18 included the development and analysis of base rate revenue requirements, cost recovery  
19 and regulatory reporting. I have testified on a number of occasions on issues before the  
20 MdPSC. I hold a Bachelor's degree in economics from the University of Maryland,  
21 Baltimore County and a Master's degree in Management with a concentration in  
22 Financial Management from the University of Maryland, University College.

23 II. PURPOSE OF TESTIMONY

24 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

1 A. The purpose of my testimony is to describe and support the request of Artesian  
2 Wastewater Management, Inc. to increase its rates and charges for wastewater service. I  
3 present financial data that shows the Company's rates are presently insufficient to  
4 achieve a reasonable rate of return. The Company's need for an increase is based on the  
5 operating results for the twelve-month period ended September 30, 2012 and then  
6 adjusted for known and measurable changes expected to occur during a test period  
7 consisting of the twelve-month period ended June 30, 2013. I sponsor the development  
8 of the revenue requirement, including various accounting adjustments, to support the  
9 Company's request to increase rates that recover an additional \$342,608 in annual  
10 revenues. The testimony also provides a procedure for reducing the costs for examining  
11 the sponsored rate of return in this application, and supports changes to our tariff.

12 Q. PLEASE SUMMARIZE AWMI'S REQUESTED RATE INCREASE.

13 A. AWMI requests authority to implement revised rates that recover an additional \$342,608  
14 in annual wastewater revenues and is based on a pro forma rate base of \$4,845,511,  
15 adjusted operating income of \$44,509 and an overall rate of return of 5.16 percent, which  
16 incorporates a 10.0 percent return on equity. This information is summarized on  
17 Schedule 1 of Exhibit 1, appended to the testimony. The Company's application seeks  
18 authority to increase charges for wastewater service from \$75 per Equivalent Dwelling  
19 Unit ("EDU") to \$98 per EDU. The proposed increase in the Flat Rate Charge results in  
20 a 34.8 percent increase over pro forma annual Flat Rate wastewater revenues and a 19.8  
21 percent increase over total wastewater revenues.

### 22 III. COMPONENTS OF RATE RELIEF

23 Q. PLEASE EXPLAIN HOW RATES HAVE BEEN DEVELOPED.

1 A. A traditional format was used to examine AWMI's need for additional revenues  
2 necessary to support its operations. Stated differently, rates are set to provide a company  
3 an opportunity to recover prudently incurred costs, including taxes and depreciation, plus  
4 a fair and reasonable return for investments that have been developed to provide safe and  
5 reliable service for customers.

6 Q. WHAT IS THE SOURCE OF THE FINANCIAL INFORMATION PRESENTED IN  
7 YOUR EXHIBITS?

8 A. The information included in my analysis is derived from AWMI's books, records and  
9 financial statements.

10 Q. WHAT DATA DID AWMI USE IN THE DEVELOPMENT OF ITS PROPOSED  
11 REVENUE REQUIREMENT?

12 A. AWMI utilized a Test Year consisting of the twelve-month period ended September 30,  
13 2012 and a Test Period consisting of the twelve-month period ended June 30, 2013. The  
14 June 2013 Test Period, represents a period 9 months after the conclusion of the Test Year  
15 and thus satisfies the requirements set forth in the Minimum Filing Requirements<sup>1</sup>  
16 ("MFR"). Test Period financial projections are based on historic operating results, as  
17 well as budgeted performance expected to occur during calendar year 2013.

18 Q. HAS THE COMPANY PREVIOUSLY FILED A RATE APPLICATION WITH THE  
19 COMMISSION?

20 A. The Company filed a wealth of financial information with the Commission to support the  
21 assessment of a \$75 per EDU charge when it initiated service in 2005. As additional  
22 plants commenced operations additional information was filed to support the continued

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<sup>1</sup>The requirements for the MFR are set forth in 26 Del C.

1 assessment of the same charge. The Commission approved an initial tariff that priced  
2 wastewater service at a fixed fee of \$75 per month per EDU for each customer/facility  
3 receiving service. This application represents the first formal rate application submitted  
4 by AWMi to the Commission for a revision in its rates and tariff. The Staff conducted an  
5 informal review of AWMi's operations approximately 4 years ago and found those rates  
6 to be reasonable.

7 Q. DID YOU PREPARE EXHIBITS THAT SUPPORT AWMi'S REQUEST TO  
8 INCREASE ITS RATES AND CHARGES FOR WASTEWATER SERVICE?

9 A. Yes. I developed a complete list of schedules in accordance with the MFR as prescribed  
10 by the Delaware Public Service Commission. Specifically, I developed two exhibits,  
11 which are appended to the testimony and marked as Exhibit 1 and Exhibit 2. Exhibit 1  
12 provides the financial support for the revenue request on 39 schedules enumerated  
13 Schedule 1 through Schedule 7. Schedules 2 and 3 of the exhibit contain numerous  
14 supporting schedules. Exhibit 2 contains AWMi's recommended wastewater service  
15 tariff; a legislative version is marked as Exhibit 2a and a clean version is marked as  
16 Exhibit 2b.

17 Q. PLEASE INDICATE THE RETURNS THAT HAVE BEEN GENERATED BY  
18 AWMi'S OPERATIONS?

19 A. Based on the twelve-month period ended September 30, 2012, AWMi's operations  
20 produced a ratemaking return of 2.38 percent, which is expected to decline to 0.92  
21 percent during the Test Period. These returns show the Company is earning a return  
22 significantly below the reasonable return requested in this proceeding. The development  
23 of these returns from operations is shown on Schedule 3, page 3. For the twelve-month

1 period ended December 31, 2011, AWMi earned a return of 1.41 percent from its  
2 operations. This demonstrates that AWMi has and continues to earn a return that is  
3 precipitously low.

4 Q. DOES THE COMPANY PROPOSE A SOLUTION TO REDUCE THE COSTS  
5 ASSOCIATED WITH LITIGATING/EXAMINING THIS RATE APPLICATION?

6 A. Yes. One of the biggest expenses incurred in rate cases are those that relate to the cost of  
7 outside experts retained by the Company and intervener's to provide cost of capital  
8 recommendations. Specifically, the return on equity component ("ROE") generates a  
9 considerable amount of discussion. If parties can agree on an appropriate benchmark/  
10 target for evaluating the financial performance of AWMi, the need for expert advice in  
11 this area can be eliminated.

12 Q. WHAT DOES THE COMPANY RECOMMEND?

13 A. AWMi proposes to establish an overall return that incorporates a benchmark rate of  
14 return on equity of 10.0 percent. The Company believes this strategy should be a positive  
15 outcome for all parties involved in evaluating AWMi's operations.

16 Q. ARE YOU AWARE OF OTHER COMPANIES UTILIZING THIS STRATEGY?

17 A. It is the Company's understanding that Tidewater Environmental Services, Inc. ("TESI")  
18 followed this strategy for a wastewater case filed in 2011 docketed as 11-329WW. On  
19 June 5, 2012<sup>2</sup>, the Commission endorsed the Settlement Agreement in that docket  
20 finding, among other things, that an appropriate return on equity for TESI was 10.0  
21 percent.

22 Q. IS A 10.0 PERCENT RATE OF RETURN ON EQUITY REASONABLE?

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<sup>2</sup> Order 8153 was issued by the Delaware Public Service Commission in Docket 11-329WW on June 5, 2012.

1 A. The Company believes that a 10.0 percent rate of return on equity represents the  
2 minimum threshold for assessing financial performance. The requested rate of return on  
3 equity is on par with the return recently afforded AWMI's affiliate, Artesian, which  
4 received rate relief at the end of 2011. By comparison, AWMI is a much smaller entity  
5 and therefore unable to leverage economies of scale in the marketplace. AWMI's  
6 operations are also more risky than those of its sister affiliate.

7 Q. ARE THERE SAVINGS THAT CAN BE REALIZED BY USING THIS STRAEGY?

8 A. Yes. Judging from experts retained in prior cases by Artesian, the strategy should  
9 eliminate the need to spend approximately \$40,000 to \$50,000 per party or about  
10 \$150,000 in total, an amount that represents about 10 percent of AWMI's test year  
11 expenses. I will discuss the development AWMI's recommended rate of return in more  
12 detail later in my testimony.

13 Q. HOW DOES AWMI STAFF ITS ORGANIZATION?

14 A. AWMI has no direct employees; instead it utilizes experienced and well-qualified  
15 personnel assigned from AWMI's affiliate Artesian Utility Development, Inc. ("AUDI")  
16 to coordinate and perform the day-to-day field work associated with the wastewater  
17 operations. Time for personnel performing tasks is directly charged to AWMI from  
18 AUDI.

19 Q. HOW DOES AWMI OPERATE THE SYSTEM?

20 A. As Artesian witness Brian C. Carbaugh notes, AWMI has moved to a regionalization  
21 concept in the operation of several of its facilities to maintain costs as low as possible.  
22 AWMI applied and received authority from the Commission to assess customers a  
23 uniform rate of \$75 per EDU when it commenced operations several years back. The



1 uniform rate works well with the regionalization concept that has been employed by the  
2 organization. More importantly, assessing a uniform rate ensures the expense of  
3 operating the system is shared equally across the customer base. It would be very  
4 difficult, if not impossible; to deconstruct the uniform rate because of the difficulty in  
5 attempting to reconstruct labor costs that should be charged to each unit and going  
6 forward would entail operational changes to arrive at a pure separation of costs.  
7 Operators often access databases at the facilities to view operations at other facilities to  
8 determine the order in which facilities should be visited or if there are issues that require  
9 attention.

10 A. Rate Base

11 Q. WHAT IS RATE BASE AND WHAT LEVEL HAS BEEN USED TO DETERMINE  
12 AAWMI'S REQUESTED RATE RELIEF?

13 A. Rate Base represents the net amounts of funds that have been advanced by the Company  
14 to provide utility service for customers. The largest component of Rate Base is "Used  
15 and Useful Utility Plant". Rate Base also includes common offsets such as Accumulated  
16 Depreciation and Accumulated Deferred Income Taxes. A summary of the components  
17 that derive the Company's recommended Rate Base for the Test Year and Test Period are  
18 shown on Exhibit 1, Schedule 2. Based on the recommended Test Year and Test Period,  
19 AAWMI should be authorized to use a rate base of \$4,845,511 to develop just and  
20 reasonable wastewater rates. Net Test Period Rate Base includes approximately \$1.6  
21 million of projected plant and related offsets expected to occur through the end of the  
22 Test Period.

1 Q. WHAT IS THE BASIS FOR THE PROJECTED COMPONENTS THAT HAVE BEEN  
2 INCLUDED IN RATE BASE?

3 A. The Company's Test Period financial projections include \$2,486,196 of net capital  
4 additions from open investment work orders for significant utility plant projects that will  
5 be completed prior to the close of the Test Period. The projection also includes related  
6 offsets that in total serve to increase Rate Base by \$1,552,353.

7 1. USED AND USEFUL UTILITY PLANT

8 Q. WHAT IS MEANT BY THE PHRASE "USED AND USEFUL UTILITY PLANT", AS  
9 DESCRIBED ON SCHEDULE 2 OF EXHIBIT 1?

10 A. "Used and Useful Utility Plant" refers to the investments that have been committed by  
11 AWMI to provide customers with safe, secure, reliable wastewater service throughout  
12 our franchise area. These investments represent the tangible infrastructure components,  
13 built by AWMI, that are used to provide service to customers. A list of the investments  
14 used to provide service during the Test Year and those expected for the Test Period are  
15 shown, collectively, on Schedule 2A. The balance for the Test Year is derived from the  
16 Company's continuing property records, and the balance for the Test Period is a  
17 projection of additional investments the Company expects to finish and place into service  
18 prior to the close of the Test Period.

19 Q. PLEASE DESCRIBE THE MOST SIGNIFICANT ELEMENT OF THE PROJECTED  
20 PLANT BALANCES.

21 A. AWMI forecasts that it will invest and complete approximately \$2.8 million of additional  
22 plant by the end of the Test Period. Of this total, approximately \$1.5 million for Phase II  
23 improvements at Beaver Creek facility; \$590,000 for Lift Station upgrades at the Beaver  
24 Creek and Windstone facilities; and \$547,123 to construct Force Mains and Collection

1 System improvements at our Windstone facility. Artesian witness Brian C. Carbaugh  
2 will discuss our projected capital expenditures in greater detail. A complete list of  
3 expected plant additions and related retirements are shown on Schedule 2A.

4 2. INTANGIBLE ASSETS

5 Q. DOES RATE BASE INCLUDE INTANGIBLE ASSETS?

6 A. No. AWMi has no intangible assets related to its organization; therefore no amounts  
7 were reflected in Rate Base. The balance of Intangible Assets for the Test Year is shown  
8 on Schedule 2B.

9 3. ACCUMULATED DEPRECIATION

10 Q. DOES RATE BASE REFLECT COMPONENTS THAT SERVE TO REDUCE OR  
11 LOWER RATE BASE?

12 A. Yes. Rate Base has been reduced for the balance of Accumulated Depreciation taken on  
13 plant items invested by AWMi. The Accumulated Depreciation account represents the  
14 recovery of plant, through depreciation, that has occurred over time. Schedule 2C,  
15 appended to the testimony, identifies the balances of Accumulated Depreciation for the  
16 Test Year and Test Period that reduce Rate Base.

17 4. ACCUMULATED DEFERRED INCOME  
18 TAXES, CIAC, AND ADVANCES

19 Q. ARE THERE OTHER COMPONENTS THAT SERVE TO REDUCE RATE BASE?

20 A. Yes. Accumulated Deferred Incomes Taxes and Contributions including Advances are  
21 also components that reduce Rate Base. The Deferred Income Tax component  
22 represents differences in how items are treated for book and tax purposes. Typically, a  
23 deferred income tax arises from the fact that ratemaking employs the use of a straight line  
24 approach that flow the benefits of depreciation consistently over the service life of an

1 asset, while various taxing authorities employ strategies that expedite recovery. Schedule  
2 2D shows the balance of Accumulated Deferred Income Taxes for Test Year and Test  
3 Period. Contributions in Aid of Construction (“CIAC”) and Advances represent  
4 investments received that have not been funded by the Company. As these items are not  
5 funded by the Company, they serve to reduce Rate Base. The balance of these  
6 components for the Test Year and Test Period is shown on Schedule 2G.

7 5. CASH WORKING CAPITAL AND MATERIALS  
8 AND SUPPLIES

9 Q. ARE THERE COMPONENTS THAT SERVE TO INCREASE RATE BASE?

10 A. Yes. Cash Working Capital (“CWC”) and Materials and supplies represent investments  
11 used by the Company to operate the business. CWC represents the net daily cash needs  
12 required to operate the business efficiently on a day to day basis. AWMI used the 1/8  
13 method which develops a proxy for the actual cash needs of the business and is derived  
14 by multiplying Operating and Maintenance expenses times one-eighth. Schedule 2E  
15 shows the development of CWC for the Test Period. Materials and Supplies represent  
16 investments in utility items that are held in inventory for use when needed by the  
17 Company. Schedule 2F shows AWMI has no investments in Materials and Supplies for  
18 the Test Year or Test Period. The lead/lag method was not used to derive the Cash  
19 Working Capital component since AWMI’s daily cash expenses are quite small and there  
20 are no underlying inventory balances. AWMI must have sufficient cash resources to fund  
21 its operations until it receives payment from customers. The 1/8 method is used as a  
22 proxy to derive Cash Working Capital. The method is reasonable given the size of  
23 AWMI’s operations and it results in an amount that is just 3.9 percent of Rate Base.

24 6. RATE BASE SUMMARY

1 Q. PLEASE SUMMARIZE THE LEVEL OF RATE BASE YOU RECOMMEND THE  
2 COMMISSION USE IN SETTING RATES FOR AWMI.

3 A. In setting just and reasonable rates for AWMI, I recommend the Commission use a net  
4 Rate Base of \$4,845,511 consistent with a Test Period consisting of the twelve-month  
5 period ended June 30, 2013.

6 B. NET OPERATING INCOME

7 Q. PLEASE EXPLAIN THE DEVELOPMENT OF NET OPERATING INCOME USED  
8 AS A BASIS FOR RATE RELIEF IN THIS APPLICATION.

9 A. Net Operating Income represents the net or difference between revenues received from  
10 customers, in payment for the provision of utility service, less applicable expenses  
11 associated with providing that service. The development of a reasonable level of  
12 operating income for use in the establishment of reasonable wastewater rates begins with  
13 Test Year Operating Income and incorporates necessary adjustments to revenues and/or  
14 expense that, in total, are reflective of Operating Income expected to be realized during  
15 the Test Period. A summary of the components that derive Operating Income for the Test  
16 Year and Test Period is shown on Schedule 3, page 1. Page 2 of Schedule 3 provides a  
17 monthly breakdown of the components of Test Year Operating Income. Page 3 of  
18 Schedule 3 provides a summarized schedule of the adjustments necessary to develop Test  
19 Period Operating Income.

20 Q. PLEASE DESCRIBE THE RATE OF RETURN EARNED FROM AWMI'S  
21 OPERATIONS.

22 A. During the Test Year ended September 30, 2012, AWMI operations produced a return of  
23 2.38 percent and during the Test Period the return is expected to regress to 0.92 percent.

1 These return levels are inadequate and are significantly below the 5.16 percent  
2 recommended rate of return proffered for use in examining AWM's requested rate relief.

3 1. OPERATING REVENUES

4 Q. PLEASE EXPLAIN HOW TEST YEAR REVENUES WERE DERIVED.

5 Test Year revenues consists of monthly flat rate revenues received from customers billed  
6 for service, Operating Subsidy amounts booked, and miscellaneous revenues for items  
7 such as late payment charges and inspection fees. Flat Rate revenues represent the fee  
8 revenue received or collected for providing service to customers during the Test Year and  
9 is derived by multiplying the current monthly fixed fee of \$75 by the number of EDUs  
10 assigned to each end-user. Operating Subsidies represent amounts received from  
11 developers pursuant to operating agreements for each wastewater facility and are  
12 intended to mitigate the operating cost of each facility as the base of customers evolves.  
13 Miscellaneous Revenues represent inspection fees collected for each connection pursuant  
14 to the tariff and late payment charges. Page 4 of Schedule 3 provides a monthly  
15 breakdown of total Operating Revenues of \$1,682,971 realized during the Test Year.

16 Q. PLEASE EXPLAIN HOW TEST PERIOD REVENUES ARE DERIVED.

17 A. A summary schedule that identifies the adjustments to operating revenue are shown on  
18 Schedule 3A, page 1. Page 2 of Schedule 3A presents a total of 5 adjustments that are  
19 designed to adjust Test Year Operating Revenues to present a reasonable level of  
20 Operating Revenue for the Test Period. The adjustments are designed to remove non-  
21 recurring revenue, to annualize revenue from current customers at the end of the Test  
22 Year and also to impute the impact of additional customers that are expected to connect  
23 to the system in 2013. The total of the adjustments presented on Schedule 3A, page 2

1 when combined with Test Year Operating Revenue derive a reasonable level of  
2 Operating Revenue for the Test Period.

3 Q. PLEASE DISCUSS ADJUSTMENTS TO REMOVE NON-RECURRING  
4 COMPONENTS OF TEST YEAR OPERATING REVENUE.

5 A. In 2012, AWMI received authority to transfer its authority to provide wastewater service  
6 to customers that reside in the Village of Herring Creek to Sussex County, Delaware.  
7 During 2012, AWMI collected approximately \$35,063 in revenues from customers in this  
8 community and since service to the community is no longer ongoing, these revenues have  
9 been removed from the Test Year.

10 Q. PLEASE DISCUSS RECOMMENDED ADJUSTMENTS THAT ANNUALIZE  
11 OPERATING REVENUES.

12 A. Four (4) adjustments are presented for the purpose of annualizing Test Year Operating  
13 Revenue. First, revenues are increased by \$32,778 to reflect annualized revenue  
14 consistent with the number of customers connected to the system at the end of September  
15 30, 2012, the end of the Test Year. Adjustments have also been developed to reflect  
16 activity through the conclusion of the Test Period. Annualizing the Operating Subsidy  
17 has the effect of reducing revenue by \$60,062, but annualizing for the impact of  
18 additional customers results in \$99,000 of additional Flat Rate Revenue and \$11,000 in  
19 revenue from Inspection Fees. In total, Test Year Operating Revenue is adjusted upward  
20 by \$47,653 to derive Pro Forma Operating Revenue at current rates of \$1,730,624.

21 Q. PLEASE EXPLAIN THE DERIVATION OF THE ADDITIONAL REVENUES  
22 SHOWN ON SCHEDULE 3, PAGE 3.

1 A. The figure of \$342,608 shown in the schedule represents the additional flat rate revenues  
2 necessary for the Company to achieve a reasonable rate of return and is a function of rate  
3 base, operating income, rate of return and the conversion factor.

4 2. OPERATING EXPENSES

5 Q. WHAT LEVELS OF OPERATING COSTS WERE INCURRED DURING THE TEST  
6 YEAR?

7 A. During the Test Year that ended September 30, 2012, AWMI incurred \$1,368,896 in  
8 operating costs. A recap of these costs is provided in several formats in Schedule 3B,  
9 pages 1 through 3.

10 Q. WHAT IS THE BASIS FOR THE OPERATING COSTS REPORTED IN SCHEDULE  
11 3B?

12 A. The costs reported in the schedules were retrieved from AWMI's financial statements for  
13 the Test Year that ended September 30, 2012.

14 Q. PLEASE INDICATE HOW PRO FORMA OPERATING EXPENSES, SHOWN ON  
15 SCHEDULE 3, PAGE 1 WERE DEVELOPED.

16 A. The development of Pro Forma Operating Expenses for the Test Period begins with Test  
17 Year Operating Expenses, which are adjusted to be more representative of the activity  
18 expected to transpire during the Test Period ended June 30, 2013. Schedule 3B, page 4  
19 outlines 13 adjustments to AWMI's operating costs that have been developed to present a  
20 reasonable level for the Test Period. A total of \$92,731 in adjustments were developed,  
21 which when combined with the costs incurred during the Test Year results in Test Period  
22 Expenses of \$1,680,640.

23 Q. WHAT IS THE BASIS FOR PROJECTED OPERATING EXPENSE ADJUSTMENTS?



1 A. The adjustments shown on Schedule 3B, page 4 are based on either the removal of non-  
2 recurring costs or costs that are expected to occur during the Test Period. Projected costs  
3 are based on a review of historic costs as well as operating budgets for 2013. The  
4 derivation of each adjustment to operating expenses is shown on Schedule 3B, pages 5  
5 through 17 and Schedule 3H.

6 Q. PLEASE EXPLAIN THE FIRST ADJUSTMENT TO OPERATING COSTS.

7 A. This adjustment, to payroll costs, reflects a 3 percent increase in costs to reflect the  
8 projected costs of employee compensation through the Test Period. The adjustment  
9 increases operating expense by \$16,737 and is shown on Schedule 3B, page 5.

10 Q. PLEASE DESCRIBE THE NEXT ADJUSTMENT SHOWN ON SCHEDULE 3B,  
11 PAGE 6.

12 A. The prepared adjustment to employee benefit costs is derived by inflating Test Year costs  
13 by 8 percent and increases operating costs by \$16,050 as shown on Schedule 3B, page 6.  
14 The 8 percent increase was used as a conservative estimate of projected increases  
15 expected during the Test Period.

16 Q. PLEASE EXPLAIN THE ADJUSTMENT TO REMOVE COSTS RELATED TO THE  
17 VILLAGE OF HERRING CREEK.

18 A. In 2012, AWMI received approval from the Commission to transfer its authority to  
19 provide service to the Village of Herring Creek to Sussex County, Delaware. The  
20 adjustment to remove \$11,467 reflects the removal of operational costs incurred prior to  
21 the transfer of operating authority. Since these are non-recurring they have been removed  
22 from the Test Period. The development of this adjustment is shown on Schedule 3B,  
23 page 7.

1 Q. PLEASE EXPLAIN THE ADJUSTMENT TO REFLECT INCREASED PURCHASED  
2 POWER COSTS.

3 A. The prepared adjustment of \$21,205 to purchased power costs reflects the expected  
4 increased costs of purchased power and gas / propane costs through the Test Period. This  
5 adjustment reflects the costs for increased energy usage due to an expected colder than  
6 normal winter. The derivation of the adjustment is shown on Schedule 3B, page 8.

7 Q. PLEASE DESCRIBE THE NEXT ADJUSTMENT TO OPERATING COSTS.

8 A. The next adjustment reflects the recovery of rate case costs expected to be incurred to  
9 implement revised rates. The adjustment recovers estimated rate costs over a 2 year  
10 period and increases operating costs by \$28,975 and is shown on Schedule on 3B, page 9.

11 Q. PLEASE DESCRIBE THE ADJUSTMENT TO REMOVE WASTEWATER  
12 BILLINGS.

13 A. Our Windstone facility is currently connected to Sussex County's wastewater system. In  
14 2013, the plant will be fully connected to other AWMF facilities and therefore there is no  
15 longer a need for these costs. The adjustment to remove \$25,000 reflects billings  
16 incurred by this facility during the Test Year. The adjustment is shown on Schedule 3B,  
17 page 10.

18 Q. PLEASE DESCRIBE THE NEXT ADJUSTMENT TO OPERATING COSTS.

19 A. The next adjustment for \$8,414, to testing costs, reflects the expected costs to be incurred  
20 for testing and monitoring AWMF's wastewater systems to ensure they meet regulatory  
21 requirements. This adjustment is shown on Schedule 3B, page 11.

22 Q. PLEASE DESCRIBE THE RECOMMENDED ADJUSTMENT FOR INCREASED  
23 TRAINING COSTS.

1 A. This adjustment increases operating expenses by \$9,467 and is designed to ensure that  
2 workers receive appropriate training in line with regulatory requirements. This  
3 adjustment is shown on Schedule 3B, page 13.

4 Q. PLEASE DESCRIBE THE ADJUSTMENT FOR SAFETY MEASURES.

5 A. This adjustment increases operating costs by \$6,000 and is designed to reflect necessary  
6 costs for the implementation of an Arc Flash Safety Program, a program designed to  
7 analyze AWMI electrical systems and components and identify trouble spots. The  
8 derivation of the adjustment is shown on Schedule 3B, page 14.

9 Q. PLEASE DESCRIBE THE ADJUSTMENT ASSOCIATED WITH NEW  
10 CUSTOMERS.

11 A. This adjustment reflects the increased operational costs expected to be realized during the  
12 Test Period from additional customers connecting to the system. This adjustment for  
13 \$15,058 is derived by developing a unit cost from the operational costs incurred during  
14 the Test Year for purchased power, sludge removal and chemical costs by the expected  
15 additional customers during the Test Period. The development of the adjustment is  
16 shown on Schedule 3B, page 15.

17 Q. PLEASE DESCRIBE THE NEXT ADJUSTMENT.

18 A. This adjustment for \$5,000 is designed to update AWMI's laboratory to ensure  
19 appropriate equipment is on hand in our operations. The adjustment is shown on  
20 schedule 3B, page 16.

21 Q. PLEASE DESCRIBE THE LAST ADJUSTMENT TO OPERATING COSTS.

22 A. The last adjustment increases operating costs by \$8,332 to reflect the expected  
23 inflationary impact on operating costs that have not been previously adjusted. The

1 adjustment reflects a conservative 2 percent increase in costs which is in line with  
2 inflationary impacts across the region. This adjustment is shown on Schedule 3B, page  
3 17.

4 3. DEPRECIATION

5 Q. DID YOU PREPARE AN ADJUSTMENT TO REFLECT PRO FORMA  
6 DEPRECIATION?

7 A. Yes. An adjustment to Test Year depreciation was developed consistent with projected  
8 plant components that are identified in Schedule 2A. Based on projected plant balances  
9 and contributions, pro forma depreciation of \$174,999 is developed which when  
10 compared to Test Year depreciation of \$181,039 results in a reduction of \$6,040 to  
11 depreciation expense for the Test Period. The derivation of this adjustment is shown on  
12 in Schedule 3B, page 12. Depreciation is lower in the pro forma period since  
13 contributions received were larger than the physical assets constructed by the Company.

14 4. SUMMARY OF OPERATING EXPENSES

15 Q. PLEASE SUMMARIZE YOUR RECOMMENDED LEVEL OF OPERATING  
16 EXPENSES TO BE USED IN SETTING RATES FOR AWMI.

17 A. Based on a Test Period consisting of the twelve-month period ended June 30, 2013, I  
18 recommend the Commission utilize adjusted operating expenses of \$1,680,640, which  
19 incorporates thirteen specific operating adjustments to Test Year Operating Expenses.

20 5. INCOME TAXES

21 Q. DID YOU PREPARE AN ADJUSTMENT TO INCOME TAXES BASED ON  
22 RECOMMENDED OPERATING ADJUSTMENTS REFLECTED IN THE  
23 DEVELOPMENT OF THE REQUESTED REVENUE REQUIREMENT?

1 A. Yes. Appropriate adjustments were developed to both Delaware State and Federal  
2 Income Taxes based on my recommended operating adjustments as are summarized on  
3 Schedule 3, page 3. Additionally, appropriate income tax adjustments were prepared  
4 based on the requested level of rate relief. The derivation of adjustments to income taxes  
5 is presented on Schedule 3I.

6 C. RATE OF RETURN

7 Q. WHAT RATE OF RETURN WAS USED IN THE DEVELOPMENT OF AWMI'S  
8 REQUEST FOR RATE RELIEF?

9 A. AWMI recommends the use of a reasonable overall rate of return of 5.16 percent in the  
10 development of the requested rate relief. This overall return incorporates the adoption of  
11 a 10.0 percent rate of return on equity as discussed earlier in the testimony. The  
12 development of this return level is shown on Schedule 4.

13 Q. PLEASE DESCRIBE HOW THE 5.16 PERCENT OVERALL RATE OF RETURN  
14 WAS DEVELOPED.

15 A. The 5.16 percent rate reflects a combination of debt and equity resources that have been  
16 used to finance utility operations. The development of the rate of return is shown on  
17 Schedule 4. The book balances of the debt and equity resources were adjusted to reflect  
18 the removal of approximately \$11 million in non-utility investments previously funded  
19 by AWMI. At the end of the Test Year, AWMI's unadjusted debt and equity resources  
20 produced a capital structure consisting of 75.5 percent debt and 24.50 percent equity. To  
21 mitigate the impact of these investments, I elected to remove 75.5 percent of the  
22 investment from AWMI's debt load and the remainder from the equity balance. Properly

1 adjusted, the capital structure is composed of 40.57 percent equity and 59.43 percent  
2 debt.

3 Q. WHAT COST RATE WAS APPLIED TO DEBT REFLECTED IN THE CAPITAL  
4 STRUCTURE?

5 A. A cost rate of 1.85 percent was applied to debt resources. This rate reflects a projection  
6 of the expected cost rate for AWMI's Line of Credit in 2013.

7 D. AFUDC

8 Q. HAS THE COMPANY INCLUDED INFORMATION RELATED TO ALLOWANCE  
9 FOR FUNDS USED DURING CONSTRUCTION?

10 A. Yes. The AFUDC accrual rates applied during Test Year are provided in Schedule 7.  
11 The accrual rates are applied monthly and change quarterly based on a weighted average  
12 of a composite of debt and equity resources.

13 IV. RATE DESIGN

14 Q. WHAT TYPE OF RATE STRUCTURE IS CURRENTLY EMPLOYED BY AWMI?

15 A. AWMI assesses each customer a monthly flat fee of \$75 per EDU assigned. The flat fee  
16 applies universally to all customers throughout our franchised service area. Industrial  
17 customers are also assessed a monthly monitoring and testing fee which is equal to actual  
18 costs plus a 15 percent overhead charge.

19 Q. WHAT RATE STRUCTURE DOES AWMI PROPOSE TO RECOVER THE  
20 REQUESTED RATE RELIEF?

21 A. AWMI proposes to maintain the use of a flat rate fee applied universally throughout the  
22 service area. Based on the requested rate relief and the expected EDU's for the Test  
23 Period, AWMI proposes to assess a flat rate of \$98 per EDU. The development of the

1 proposed flat rate fee is shown on Schedule 6. The updated fixed fee component of \$98  
2 per EDU represents a 30.7 percent increase over the current flat charge of \$75 per EDU.

3 V. TARIFF

4 Q. DID YOU INCLUDE A REVISED TARIFF?

5 A. Yes. A revised tariff, in red-line format, has been included as Exhibit 2a. A clean  
6 version is included in Exhibit 2b. The tariff incorporates revised rates for wastewater  
7 service, revised ancillary charges and makes miscellaneous language changes on various  
8 pages of the tariff that are not considered substantial.

9 Q. PLEASE INDICATE WHAT ANCILIARY CHARGES HAVE BEEN CHANEGED.

10 A. Charges for Late Payment and the rate of Interest assessed on Deposits have been  
11 updated to reflect approved policies in place for Artesian Water Company.

12 Q. DOES THE TARIFF INITIATE ANY NEW MEASURES TO DESIGNED  
13 STRENGHTEN COLLECTION EFFORTS?

14 A. Yes. Since wastewater is a utility service that cannot typically be terminated due to the  
15 potential health hazards likely to occur, the Company believes it is important to have  
16 strong practices in place that aid collection. To assist collection efforts the tariff has been  
17 strengthened in two regards. First, although not a new position, AWMI has strengthened  
18 the language in the tariff to make it clear that wastewater customers that also obtain water  
19 from Artesian Water may have their water account terminated for non-payment of their  
20 wastewater account. Secondly, AWMI proposes a second update to the tariff, whereby a  
21 new wastewater customer that does not receive water service from Artesian Water would  
22 be required to post and maintain a deposit equal to two months of service prior to  
23 initiating service.

1 Q. HAS AWMI UPDATED LANGUAGE IN THE TARIFF?

2 A. Yes. Miscellaneous language updates are made on several pages of the tariff that are not  
3 considered substantial.

4 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

5 A. Yes, it does.



